

**REMARKS**

Applicants acknowledge receipt of the Examiner's Office Action dated November 19, 2003. Claims 1-39 are pending in the application. The Office Action rejected claims 1-6, 12-14, 17-22, 26, 27, 33-35, 38, and 39. Claims 7-11, 15, 16, 23-25, 28-32, 36, and 37 were indicated as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In light of the foregoing amendments and following remarks, Applicants respectfully request the Examiner's reconsideration and reexamination of all pending claims.

The office action objected to claims 26 and 27 under 35 U.S.C. § 112, first paragraph. More particularly, the office action objected to claims 26 and 27 because variables contained therein are not defined. Applicants have amended claim 26 to define the variables therein. As such, Applicants submit that claims 26 and 27 are now in compliance with 35 U.S.C. § 112.

Claims 1, 12, 13, 19-21, 33, and 34 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Number 6,009,120 issued to Nobakht ("Nobakht"). With respect to independent claims 1, 12, 19, 21 and 33, the Office Action alleges that Nobakht discloses the use of a multi-dimensional equalizer for eliminating ISI in a Gigabit Ethernet system with input and output vectors citing the Abstract, column 5, lines 29-33, and Figure 3 in support thereof. Applicants have reviewed Abstract, column 5, lines 29-33, and Figure 3 and can find no teaching or fair suggestion of use of a multi-dimensional equalizer for eliminating ISI. The Abstract of Nobakht discloses a multi-dimensional equalizer. The Abstract does not say that the multi-dimensional equalizer cancels far end crosstalk and intersymbol interference. Figure 3 of Nobakht is said to

disclose a multi-dimensional equalizer having four equalization layers sharing common multi-dimensional decision devices for use with the four physical channels in the system of Figure 2. Applicants can find no teaching or suggestion within Figure 3 of Nobakht that the multi-dimensional equalizer shown therein is capable of canceling crosstalk and intersymbol interference. Nobakht does disclose in column 5, lines 29-33 a device which can eliminate ISI. Notwithstanding, Applicants submit that column 5, lines 29-33 fails to disclose the limitations of, for example, claim 1. Claim 1 clearly recites a device for canceling cross talk and intersymbol interference. Column 5, lines 29-33 of Nobakht disclose a device for eliminating only intersymbol interference. No mention is made in column 5, lines 29-33 of Nobakht of canceling cross talk. Further, column 5, lines 29-33 of Nobakht disclose a nonlinear equalizer for eliminating intersymbol interference. The nonlinear equalizer (and the linear equalizer) operates on a single channel communication device as set forth in Nobakht. Linear or nonlinear equalizers are significantly different from multi-dimensional equalizers in that the present application makes clear that multi-dimensional equalizers apply to multi-channel communication networks. As such, Applicants submit that claim 1 is patentably distinguishable over Nobakht.

The limitations of independent claim 1 which distinguish it over Nobakht, can also be found within independent claims 6, 12, 19, and 33. Accordingly, Applicants submit that all independent claims are patentably distinguishable over Nobakht.

The remaining claims depend from independent claims 1, 6, 12, 19, 26, and 33. Insofar as the independent claims have been shown to be patentably distinguishable, it follows that all dependent claims are likewise patentably distinguishable.

**CONCLUSION**

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5093.

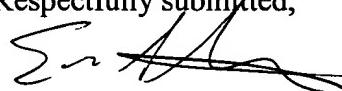
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3/18/04  
Date of Signature

Respectfully submitted,



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